FACT SHEET – ~~INTERNAL ONLY~~

Environmental Stewardship Initiatives for
VF300 Fence Construction along the Southwest Border
U.S. Border Patrol Tucson Sector
August 2010

U.S. Customs and Border Protection

The following is a summary of the environmental stewardship initiatives undertaken by U.S. Customs and Border Protection (CBP) during the planning, construction, and post-construction stages associated with installing tactical infrastructure (TI) along the U.S./Mexico International Border in the U.S. Border Patrol (USBP) Tucson Sector for TI sections "EV-1A/EV-1B" and "FV-1B." TI is a term used by the USBP to describe the physical structures that facilitate enforcement activities. These items typically include, but are not limited to, roads, vehicle and pedestrian fences, lights, gates, and boat ramps. TI constructed under CBP's Secure Border Initiative (SBI) Vehicle Fence 300 (VF300) Program within the Tucson Sector consisted of vehicle fence and patrol/maintenance roads along the U.S./Mexico International Border in Santa Cruz and Cochise counties, Arizona. Temporary construction staging areas and access roads were also required to build the TI. This Fact Sheet provides the environmental impacts anticipated during pre-construction planning and those actually encountered during and following construction. In addition, it describes stakeholder outreach efforts that were carried out during all phases of the project, contributing partners, and any continuing issues.

On April 1, 2008, the Secretary of the U.S. Department of Homeland Security (DHS), pursuant to Section 102(c) of the Illegal Immigration Reform and Immigrant Responsibility Act (IIRIRA) of 1996, as amended, exercised the waiver authority and waived certain environmental and other laws in order to ensure the expeditious construction of TI along the U.S./Mexico International Border. The TI described in this Fact Sheet is covered by the Secretary's April 1, 2008, waiver. Although the Secretary's waiver means that CBP no longer has any specific legal obligations under the laws that are included in the waiver, the Secretary has committed DHS to responsible environmental stewardship of our valuable natural and cultural resources. CBP strongly supports the Secretary's commitment to responsible environmental stewardship. To that end, CBP prepared a pre-construction Environmental Stewardship Plan (ESP), which analyzed the potential environmental impacts associated with construction of TI. Following construction, CBP prepared an Environmental Stewardship Summary Report (ESSR), which compared the final completed action to the original planned for installation of TI.

The following is a summary of CBP's environmental stewardship efforts.

- CBP carried out environmental stewardship efforts before, during, and after construction.
- Environmental impacts that resulted from this project were positive and negative.
- Best Management Practices (BMPs) were developed and carried out to minimize negative environmental impacts.
- Stakeholder public outreach was conducted during all phases of the project. Some of the stakeholder input resulted in changes to the project.

Vehicle Fence – Normandy-Style
Section FV-1B

- CBP participated in interagency and intergovernmental coordination activities to help minimize potential environmental impacts and streamline environmental processes. Some of the input also resulted in changes to the project, such as the locations of construction access roads and the actual fence design.

After construction within these sections of the USBP Tucson Sector, the following were determined:

- No significant issues associated with cultural resources occurred. Twenty-one archaeological sites were monitored during construction activities, including one previously unknown site that was unexpectedly

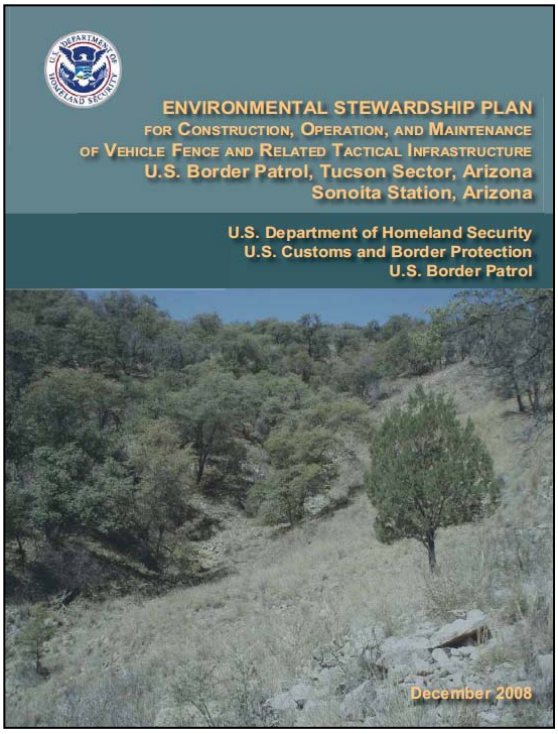
discovered during construction. Environmental monitors ensured that most of these sites were avoided or, in cases where disturbance was completely unavoidable, properly recorded.

- Approximately 164.5 acres of land were disturbed from the installation of TI in these sections.
- No changes to the size of wetlands were recorded and there were no permanent adverse impacts. Two wetland areas and several dozen ephemeral streams were identified prior to construction and monitored during construction to ensure that adverse impacts did not occur. Temporary crossings were established as needed and erosion-control measures were implemented to maintain flow characteristics.
- There were eight federally listed animal species and four critical habitats of federally listed animal species that were adversely impacted. There were no impacts on federally listed plant species or critical habitats of federally listed plants. The actual impacts on federally listed species and critical habitats were considerably lower than what was anticipated prior to construction.

ENVIRONMENTAL STEWARDSHIP COMPONENTS

CBP carried out environmental stewardship initiatives during all phases of the project, before, during, and after construction. Each component is discussed in the following paragraphs.

PRE-CONSTRUCTION



Environmental Stewardship Plans – In 2008, prior to construction, CBP developed two ESPs for these VF300 sections in the USBP Tucson Sector.

- December 2008 – *Environmental Stewardship Plan for Construction, Operation, and Maintenance of Vehicle Fence and Related Tactical Infrastructure U.S. Border Patrol, Tucson Sector, Arizona, Sonoita Station, Arizona* (EV-1A and EV-1B).
- December 2008 – *Environmental Stewardship Plan for the Construction, Operation, and Maintenance of Vehicle Fence and Related Tactical Infrastructure U.S. Border Patrol Tucson Sector, Douglas Station, Arizona* (FV-1B).

These two ESPs discuss the unique biological, geographical, and environmental conditions associated with the areas proposed for TI and include BMPs designed to reduce and offset potential environmental impacts. The ESPs are available to the public and are online at http://cbp.gov/xp/cgov/border_security/ti/ti_docs/.

Biological Resources Field Surveys and Plans – CBP carried out pre-construction surveys to identify existing vegetation and wildlife within the area of the proposed fence corridor, the patrol/maintenance roads, and construction staging areas and access roads. Subsequently, a BRP was developed in coordination with the U.S. Fish and Wildlife Service to summarize findings and incorporate them into the ESPs.

- December 2008 – *Biological Resources Plan for Construction, Operation, and Maintenance of Tactical Infrastructure, Vehicle Fence 300 Tucson Sector, Arizona, Sonoita and Douglas Stations.*

Special attention was paid to identifying federally listed species and critical habitats of federally listed species within the project area.

Estimated Footprint – It was estimated prior to construction that approximately 251.5 acres of land would be disturbed from the installation of TI in these sections of the USBP Tucson Sector.

Examples of potential environmental impacts and the BMPs and mitigation measures used to minimize these impacts are listed in **Table 1.** Not all anticipated environmental impacts were adverse; in fact, some were positive. CBP predicted that the installation of TI would reduce the amount of smuggling and illegal immigration, which would have a beneficial effect on national security and socioeconomics. The reduction in illegal cross-border activity would reduce vehicle traffic in sensitive habits and benefit threatened and endangered species and their habitats.

Table 1. Potential Environmental Impacts and BMPs/Mitigation Measures Identified Prior to Construction

Potential Environmental Impact (Cultural, Species, Wetlands)	BMPs and Mitigation Measures to Reduce or Eliminate the Potential Environmental Impact
Discovery of cultural resources in work area	• Design TI in conjunction with Arizona State Historic Preservation Office • Place temporary fencing around International Boundary Monuments and other known cultural resources
Discovery of federally protected species in work area	• Halt construction until an environmental monitor can safely remove the protected species or it moves away on its own
Wildlife impacts due to construction	• Survey the area for migratory bird nests immediately prior to construction • Check open holes each morning to ensure that wildlife have not fallen in and become trapped • Integrate wildlife escape ramps into open trenches and excavations • Cap vertical bollards to prevent birds from falling inside • Minimize the removal of agave plants, which provide forage base for federally protected species • Relocate outside of the project areas agave plants that need to be removed
Introduction of invasive species	• Wash equipment prior to use to minimize introduction of nonnative species • Remove only the minimum amount of natural vegetation • Remove invasive species that appear
Change in size of wetlands and surface waters	• Use silt fencing and hay bale placement to prevent erosion and soil movement • Establish and follow a Storm Water Pollution Prevention Plan

DURING CONSTRUCTION

CBP contracted independent environmental monitors (i.e., for biological and cultural resources) to be present during construction activities in Sections EV-1B and FV-1B. Section EV-1A was excluded from environmental monitoring because construction within that section was limited to retrofit or replacement of existing fence in already disturbed areas. The monitors' responsibilities included documenting adherence to the BMPs prescribed in the ESPs, identifying environmental impacts that occurred beyond those predicted in the ESPs, and ensuring that federally listed species and cultural resources were not impacted by the TI construction activities. CBP's environmental monitors worked during all construction activities at these two fence sections, which occurred from October 2008 to March 2009.

An Environmental Monitor Relocates an Agave during the Early Stages of Construction

Section FV-1B

The environmental monitors reported that most BMPs prescribed in the ESPs were followed; see **Table 1** for examples of BMPs. However, some deviations did occasionally occur, including the following:

- Lack of flagging around work areas
- Unnecessary off-road driving
- Unnecessary clearing of vegetation
- Improperly managed trash
- Open trenches without proper small animal escape ramps
- Lack of drip pans underneath equipment.

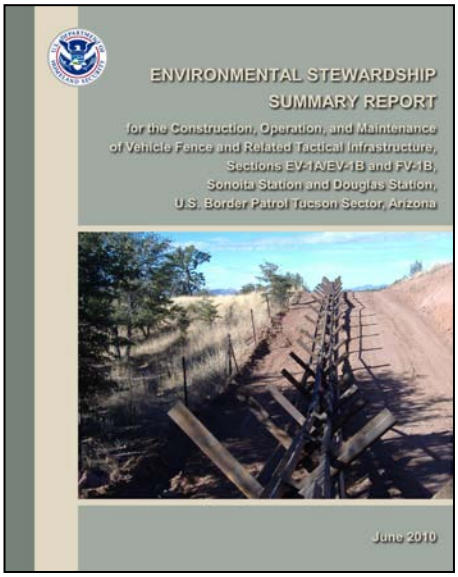
No significant impacts on environmental resources resulting from the BMP infractions were reported.

Unexpected field conditions during construction occasionally required practical changes to the plan for placement and design of the TI. In these situations, CBP conducted additional environmental surveys and analyses to determine the potential environmental impacts and the appropriate BMPs needed to support the changes. Most changes to the design and placement of the TI were minor and included slight refinements of fence type and footprint to meet operational requirements.

Fence Construction at Section EV-1B

POST-CONSTRUCTION

Environmental Stewardship Summary Report – CBP conducted post-construction field surveys of biological and cultural resources and prepared an ESSR.



- June 2010 – *Environmental Stewardship Summary Report for the Construction, Operation, and Maintenance of Vehicle Fence and Related Tactical Infrastructure, Sections EV-1A/EV-1B and FV-1B, Sonoita Station and Douglas Station, U.S. Border Patrol Tucson Sector, Arizona*.

The ESSR provided the following information:

- Identification of the final locations of TI and acreages of areas impacted
- An environmental baseline for future TI maintenance and repair efforts
- Documentation of the overall adherence and successes of the BMPs implemented during construction
- A record of the differences between the final locations and types of TI and those that were identified in the ESPs.

CBP's post-construction field surveys found that 164.5 acres of land were disturbed from the installation of TI in these sections. **Table 2** summarizes the estimated pre-construction and actual post-construction ground disturbance totals.

Table 2. Estimated Pre-Construction and Actual Post-Construction Ground Disturbance

Construction Activity	Estimated Disturbance in Acres (linear miles)	Actual Disturbance in Acres (linear miles)	Difference in Acres (linear miles)
Fence and Patrol/Maintenance Roads	160.1 (30.4)	137.7 (30.2)	-22.4 (-0.2)
Construction Access Roads	38.2	4.8	-33.4
Construction Staging Areas	53.2	22.0	-31.2
Total Impacts	**251.5**	**164.5**	**-87.0**

The overall reduction in disturbed area from that anticipated is attributed to a reduction in the width of the fence and patrol/maintenance road corridor and the use of pre-existing roadways for construction access roads rather than the construction access roads that were originally planned to be constructed. Approximately 14 percent of the area proposed for the fence and patrol/maintenance road corridor and 87 percent of the area proposed for construction access roads were not needed and, therefore, were not disturbed. The 41 percent reduction in the area needed for construction staging areas largely resulted from contractors limiting the total number and sizes of the construction staging areas.

Additionally, CBP's post-construction field surveys concluded the following:

Vehicle Fence – Rail on Post Style
Section FV-1B

- No significant issues associated with cultural resources occurred. Twenty-one archaeological sites were monitored during construction activities, including one previously unknown site that was unexpectedly discovered during construction. Environmental monitors ensured that most of these sites were avoided or, in cases where disturbance was completely unavoidable, properly recorded.
- No changes to the size of wetlands were recorded and there were no permanent adverse impacts. Two wetland areas and several dozen ephemeral streams were identified prior to construction and monitored during construction to ensure that adverse impacts did not occur. Temporary crossings were established as needed and erosion-control measures were implemented to maintain flow characteristics.
- Approximately 164.5 acres of soil were disturbed, a reduction of 87.0 acres from what was predicted in the ESPs.
- There were eight federally listed animal species and four critical habitats of federally listed animal species that were adversely impacted. There were no impacts on federally listed plant species or critical habitats of federally listed plants. **Table 3** shows that the actual impacts were considerably lower than what was predicted prior to construction.

Table 3. Estimated Pre-Construction and Post-Construction Impacts on Federally Listed Species

Method for Species Counts	Animals		Plants	
	Species	Critical Habitat	Species	Critical Habitat
Federally listed species and suitable habitat identified in the Biological Resources Plans	18	1	4	0
Federally listed species observed during pre-construction surveys[a] or construction monitoring[b] within the project corridor	0	4	0	0
Federally listed species and suitable habitat impacted by construction	8	4	0	0

Notes: [a] Based on the proposed project corridor [b] Based on surveys and monitoring of revised project areas

STAKEHOLDER OUTREACH ACTIVITIES

Throughout all phases of this project, CBP reached out to stakeholder organizations and regulatory agencies to incorporate their input as potential environmental impacts were identified, evaluated, and mitigated, as necessary. Outreach efforts included the following:

- **Open House** – The general public was invited to receive information and provide comments at an open house event on May 13, 2008, at The Windmere Hotel and Conference Center in Sierra Vista, Arizona.
- **Incorporation of Comments** – CBP solicited comments from the following:
  - Federal, state, and municipal government agencies
  - Non-government organizations
  - Native American tribes
  - Stakeholder organizations
  - Private individuals.

  For these TI sections, dozens of comments were received, considered, and incorporated into the ESPs by CBP.

- **Government Agency Coordination** – CBP directly coordinated with government agencies including the following:
  - U.S. Section, International Boundary and Water Commission
  - U.S. Fish and Wildlife Service
  - U.S. Army Corps of Engineers
  - U.S. National Park Service
  - U.S. Forest Service
  - Arizona State Land Department

The information received from the outreach efforts resulted in numerous changes to the project, including the location of construction access roads, placement of construction staging areas, and design of fence components to minimize potential environmental impacts.

CONTRIBUTING VF300 PROGRAM PARTNERS

To accomplish the 2006 Congressional mandate for the DHS/CBP to construct approximately 700 miles of border fence along the U.S./Mexico International Border by the end of December 2008, the DHS enlisted the assistance and expertise of interagency departments and other governmental agencies to provide management and subject matter experts for environmental stewardship, construction, real estate acquisition, and contracting tasks. Contributing partners include the following:

- Office of Border Patrol
  - Tucson Sector
- U.S. Army Corps of Engineers
  - Fort Worth District
  - Los Angeles District

CONTINUING ISSUES

CBP's post-construction surveys identified one continuing issue that is in the process of being addressed. A bridge over the Black Draw stream channel at Section FV-1B is required to enlarge the stream channel, improve the flow of water, and reduce the potential for future issues with soil erosion. Construction of the bridge was completed in August 2010.

CBP remains committed to environmental stewardship and will continue to monitor the TI sections for potential additional issues.

Normandy-Style Vehicle Fence and Current Water Handling Infrastructure at the Black Draw Stream Channel Section FV-1B